

Sesión Informativa “¿Y mañana qué? el día después de la defensa de la tesis doctoral”

Oportunidades de financiación internacionales para pre-postdoc

ETSI Navales
21 de febrero de 2023

Agenda

01

Oportunidades de financiación en Horizonte Europa

- Estructura general del programa marco
- Otros programas internacionales

02

Programas de atracción y retención talento en Horizonte Europa

- MSCA
- ERC
- Euraxess



01 Oportunidades de financiación en Horizonte Europa

¿QUÉ ES HORIZONTE EUROPA?

- Principal programa de financiación de investigación e innovación de la UE.
- Toda la información: [Funding and Tenders Portal](#)



SIXTH FRAMEWORK
PROGRAMME



SEVENTH FRAMEWORK
PROGRAMME



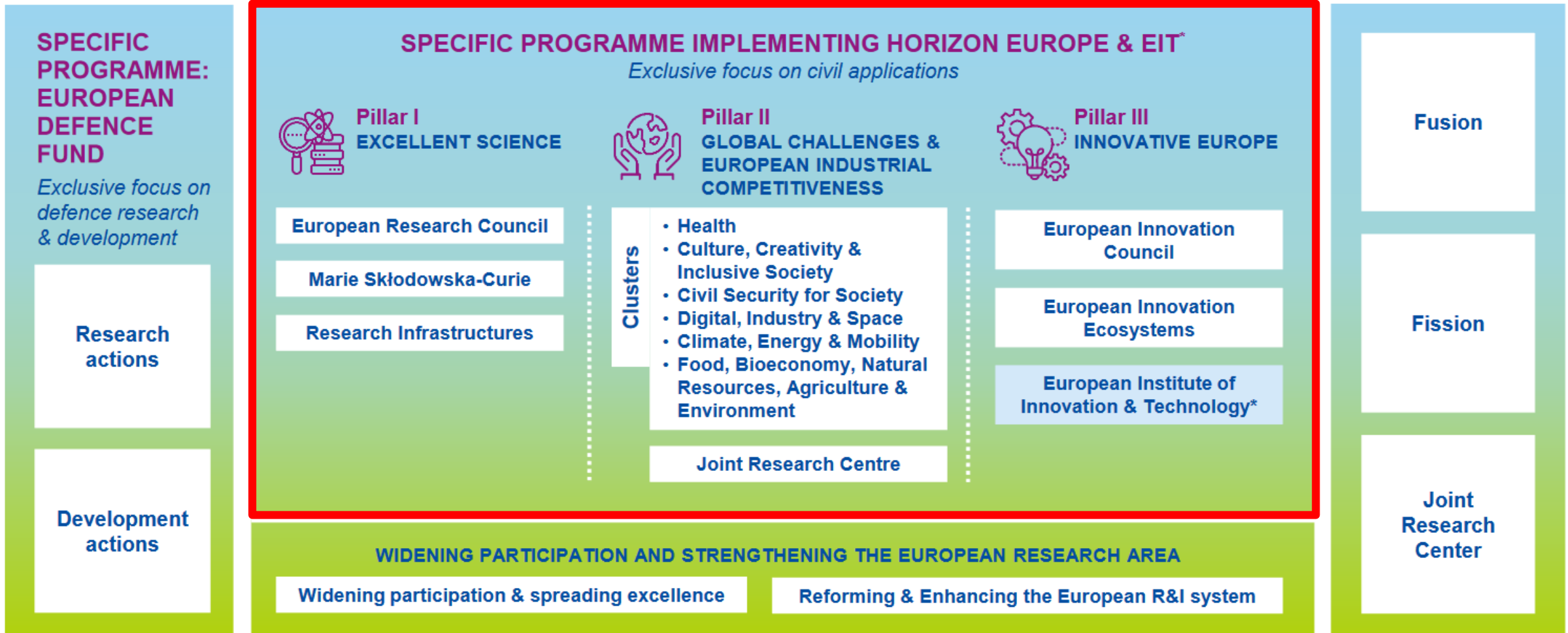
POLITÉCNICA



OFICINA DE PROYECTOS
INTERNACIONALES IDI / UPM

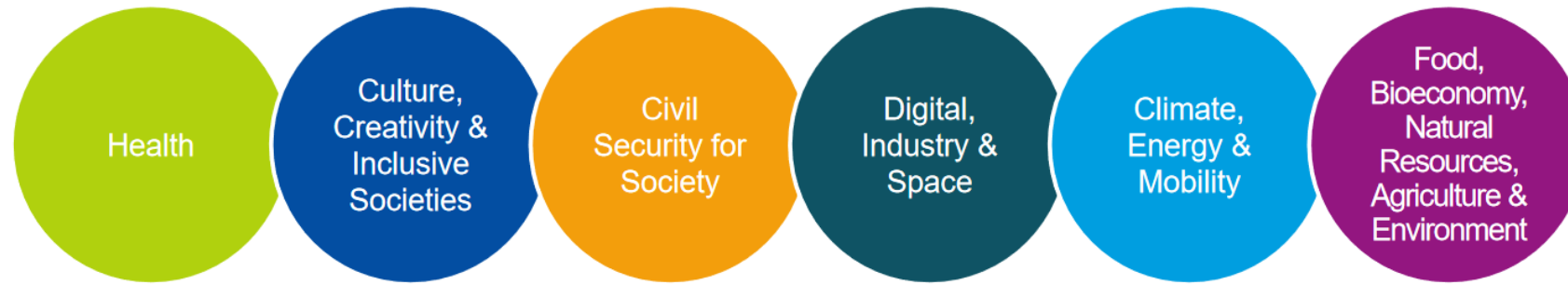
HORIZON EUROPE

EURATOM



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

PILLAR II



Respuesta a retos concretos



Proyectos colaborativos



Son elegibles gastos de personal



Demonstration of synthetic renewable fuel for aviation and/or shipping

TOPIC ID: HORIZON-CL5-2023-D3-01-07

Grant

Topic description

ExpectedOutcome:

Project results are expected to contribute to all of the following expected outcomes:

- Expand the technology portfolio for ready to pre-commercial plant investments in synthetic renewable fuel technologies for aviation and /or shipping.
- Support de-risking the technology, boost scale-up of synthetic renewable fuel for aviation and /or shipping and contribute to their market up-take.
- Respond to short- and medium-term needs for renewable fuels in aviation and /or shipping.
- Support better integration of synthetic renewable fuel technologies in aviation and /or shipping.

Scope:

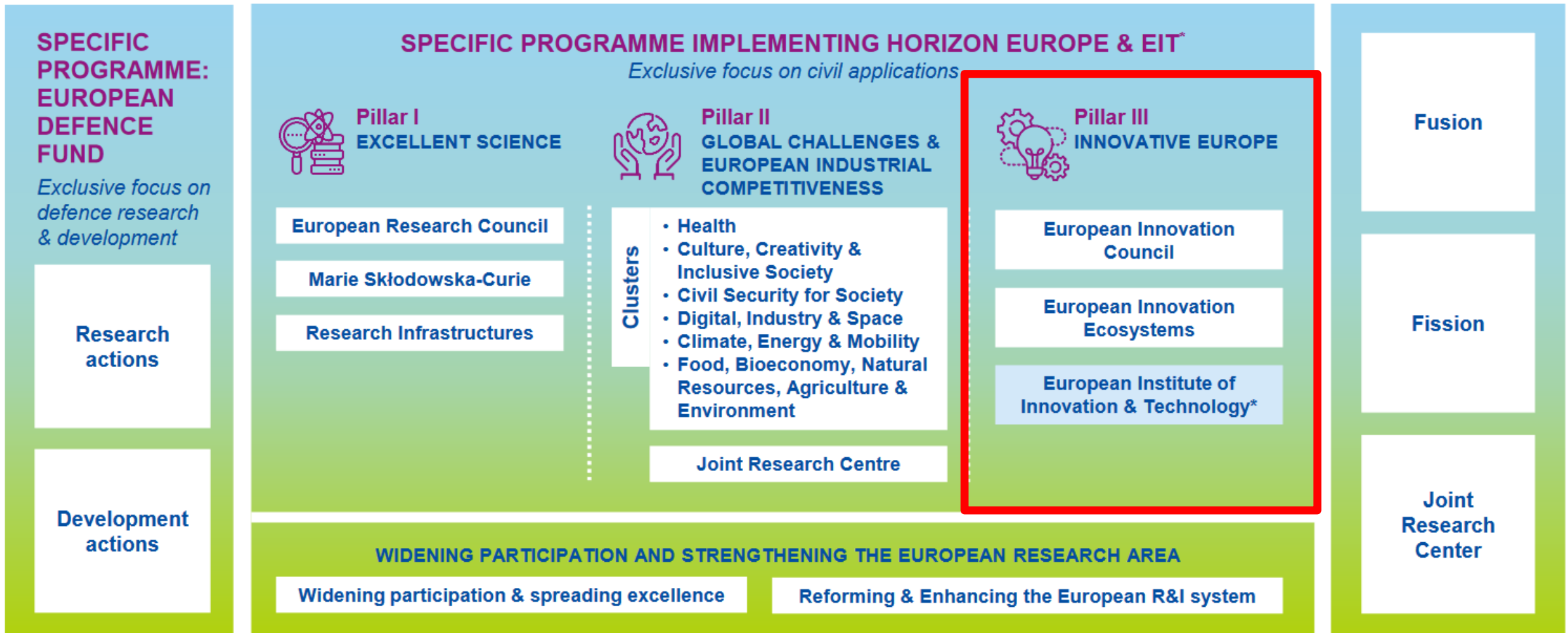
Demonstration of innovative technological pathways for the production of synthetic renewable fuels for aviation and /or shipping from renewable energy, CO₂, and/or renewable carbon, nitrogen, hydrogen or their compounds, as for example renewable synthetic paraffinic kerosene, renewable methanol/methane and renewable ammonia. Pathways via production of renewable hydrogen or renewable hydrogen ionic compounds from all forms and origins of renewable energy (e.g., electricity, direct sunlight, heat) are in scope. Cost reduction compared to current state of the art including via electricity pathways and above state of the art GHG reduction from fossil fuel equivalents are expected to be shown. An assessment for the scalability potential of the technology, as well as for the overall energy efficiency, the GHG emissions and sustainability based on life cycle analysis should be included. Proposals should provide information and assessment about the economic feasibility of the technology at commercial scale as appropriate. The exploitation plans should include preliminary feasibility study and business plan also indicating the possible funding sources to be potentially used (such as private equity, the InvestEU, the EU Catalyst Partnership and the Innovation Fund).

Specific Topic Conditions:

Activities are expected to achieve TRL 6-7 by the end of the project – see General Annex B.

HORIZON EUROPE

EURATOM



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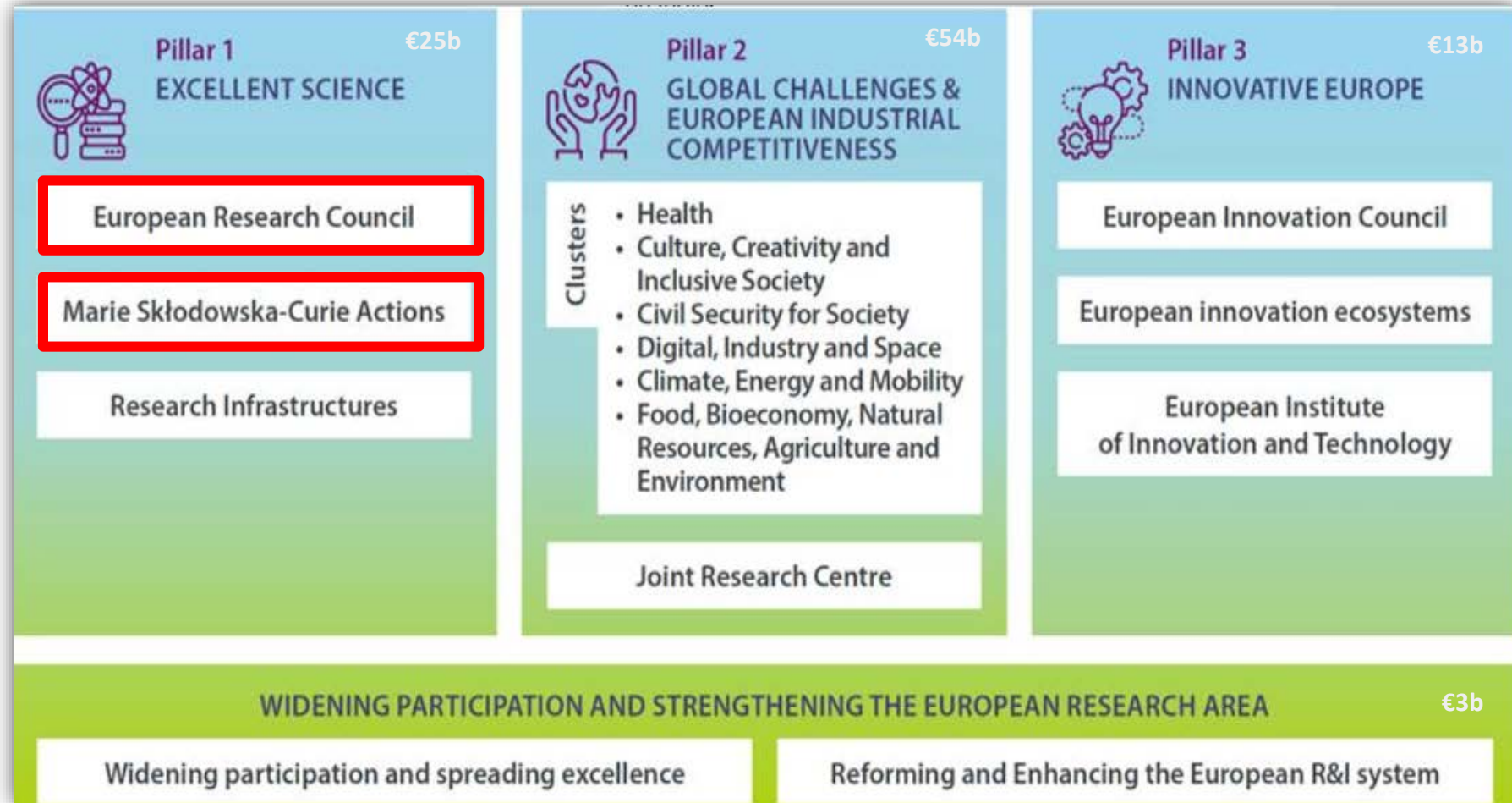


02

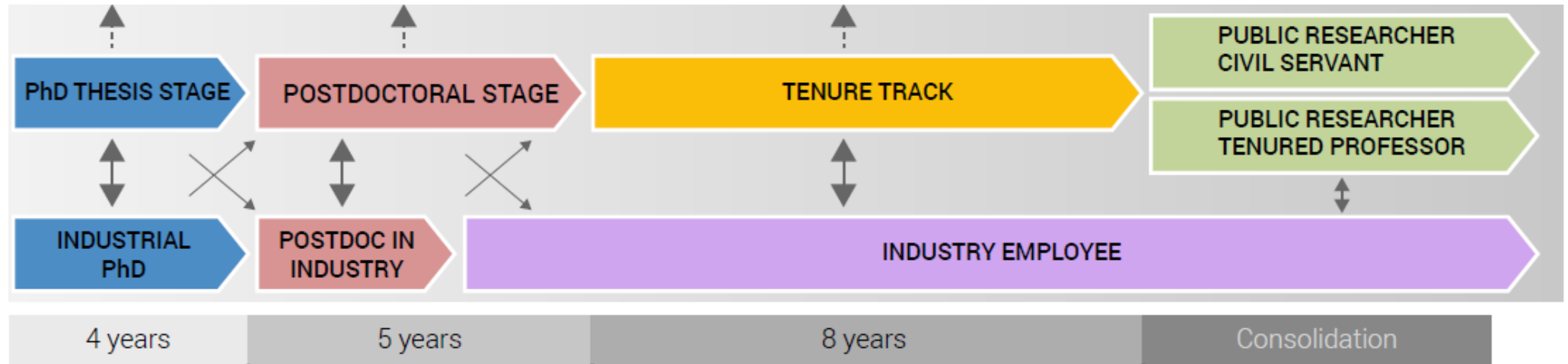
Programas de atracción y retención talento en Horizonte Europa

Marie Curie y ERC

Programas atracción talento en HE



Carrera investigadora en España y programas MSCA y ERC



Source: FECYT

(<https://www.fecyt.es/es/system/files/publications/attachments/2020/10/career-path-5th-edition-vf.pdf>)





- Apoyo a la **movilidad, la formación y la mejora del desarrollo de la carrera profesional de investigadores/as** de todo el mundo
- Proyectos bottom-up (enfoque abierto), se cubren todas la áreas científicas (incluido EURATOM)
- Condiciones de trabajo y empleo muy atractivas (100% financiación)

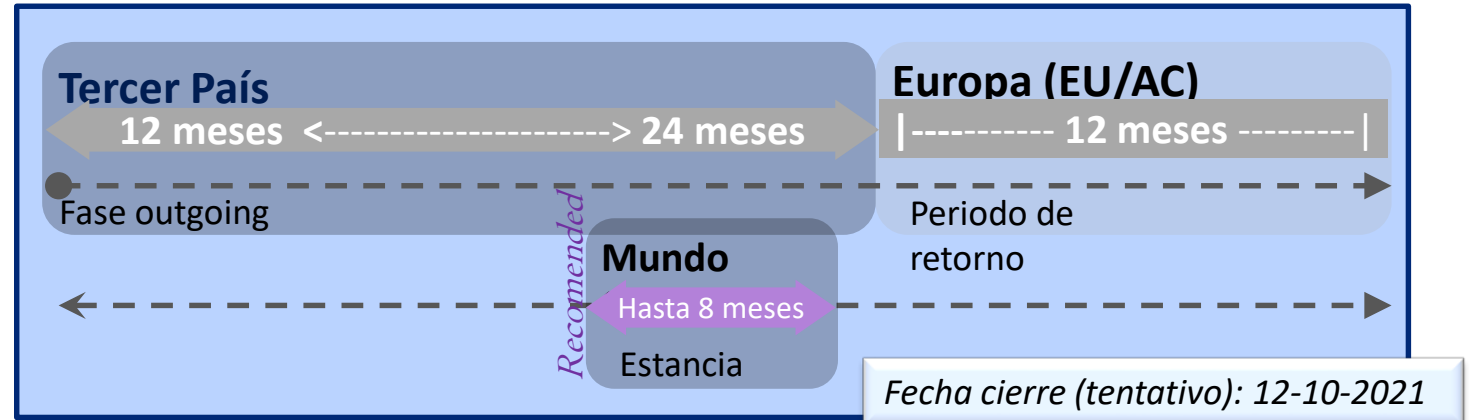
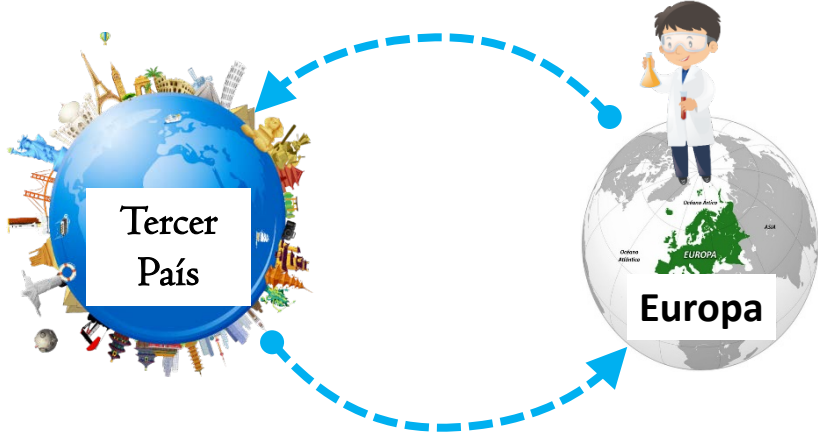
HE (2021-2027)	Descripción	Próximas convocatorias
MSCA Doctoral Networks (DN)	Redes doctorales para la contratación y formación de doctorandos	2023: 30/05/2023– 28/11/2023 2024: 29/05/2024– 27/11/2024
MSCA Postdoctoral Fellowships (PF)	Proyectos individuales para contratación de doctores	2023: 12/04/2023– 13/09/2023 2024: 10/04/2024– 11/09/2024
MSCA Staff Exchanges (SE)	Proyectos colaborativos de I+D+i para intercambio de personal	2022: 6/10/2022 – 8/03/2023 2022: 5/10/2023 – 28/02/2024
MSCA COFUND (Institucional)	Cofinanciación de programas de investigación	2022: 10/11/2022- 9/02/2023



- **Proyectos individuales** para la contratación de **doctores de cualquier nacionalidad**
- **Formación transversal** y competencias en innovación y emprendimiento
- **Plan de desarrollo de la carrera personal** (orientación y supervisión)
- **Modalidades:**
 - ✓ **European Postdoctoral Fellowship**
 - ✓ **Global Postdoctoral Fellowship**
- **Secondments:**
 - ✓ Hasta **1/3 de la duración total** y de la fase outgoing (no en fase de retorno)
 - ✓ Entidades/organismos de **cualquier país**
 - ✓ Exposición en el **sector no académico**
- **Opcional: Prácticas de hasta 6 meses en sector no académico** en Estados Miembros UE (MS) o Países asociados (AC)

MSCA PF Global Fellowship

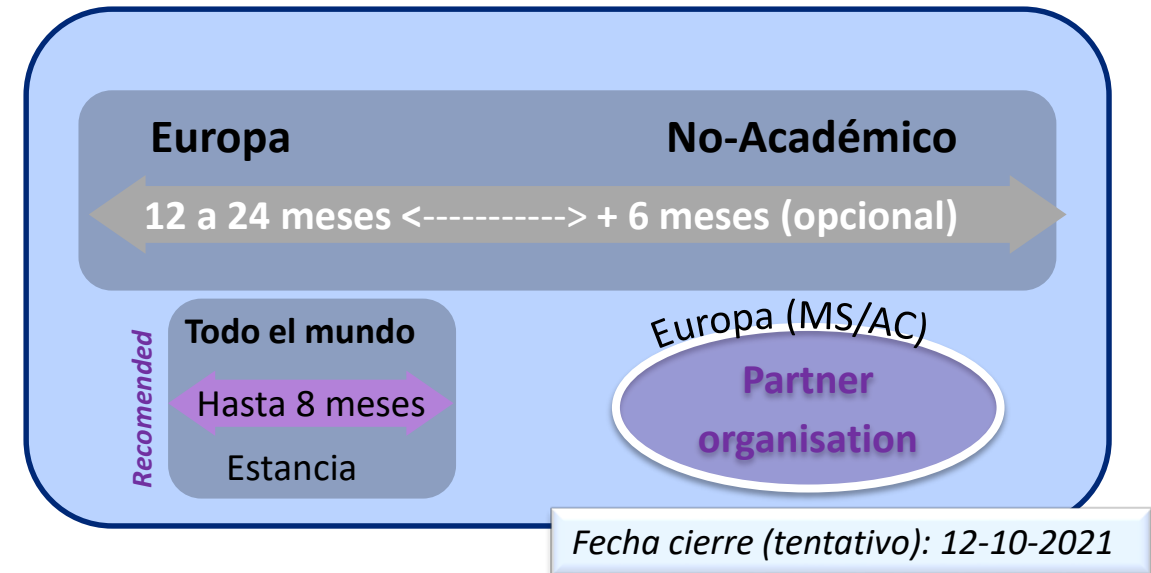
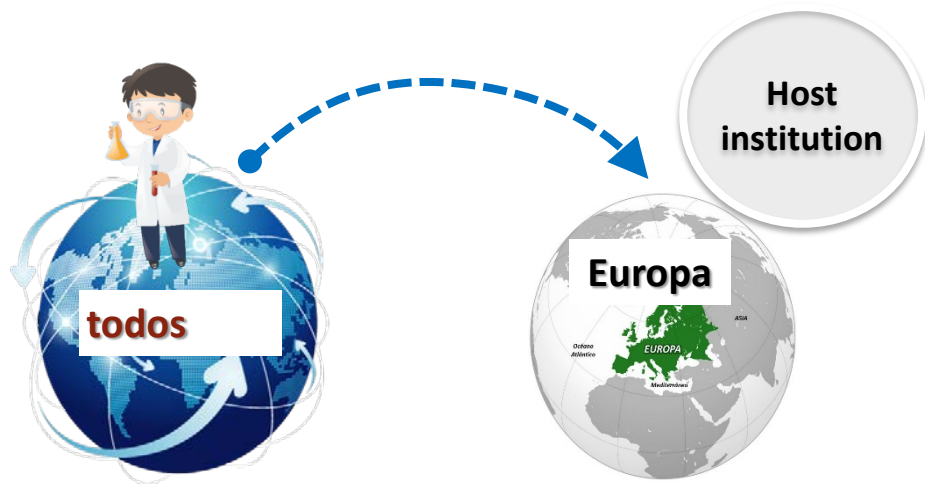
Researcher (ER)



Nacionalidad: País de la UE o Asociado o residentes de larga duración (>5 años)

Movilidad: Haber vivido y/o trabajado < 12 meses en los últimos 3 años en el Tercer País

MSCA PF European Fellowship



Nacionalidad: De cualquier país

Movilidad: Haber vivido y/o trabajado < 12 meses en los últimos 3 años en el país europeo de la institución que lo acoge

MSCA PF

Requisitos

➤ **Nacionalidad:**

- ✓ EF: Cualquier nacionalidad
- ✓ GF: Nacionalidad Europea o residentes de larga duración en MS o AC (definición)

➤ **Experiencia investigadora**

- ✓ Estar en posesión del título de doctor (a fecha de cierre de convocatoria),
- ✓ Tener un máximo de 8 años de experiencia en investigación (tras obtención título Doctor), con excepciones (pausas en la carrera investigadora , bajas por motivos justificados, etc)

➤ **Movilidad**

- Modalidad EF: NO haber residido o trabajado en España mas de 12 meses en los 3 años previos al cierre de la convocatoria.
- ✓ Modalidad GF: NO haber estado en el país Tercero fuera de Europa mas de 12 meses en los 3 años previos al cierre de la convocatoria

➤ **Otros elementos a tener en cuenta**

- ✓ Un investigador solo puede enviar una propuesta.
- ✓ Limite envío de propuesta de convocatoria anterior → solo si nota $\geq 70\%$

MSCA PF

Notas de corte y resultados 2021

PF-EF			PF-GF		
PANEL	CUT-OFF	Nº FUNDED PROJECTS	PANEL	CUT-OFF	Nº FUNDED PROJECTS
CHE	92,8	148	CHE	92	11
ECO	92	17	ECO	83,8	2
ENG	92,8	143	ENG	95	11
ENV	93,6	123	ENV	95,8	19
LIF	94,4	230	LIF	95,8	19
MAT	92,4	23	MAT	92	2
PHY	92,2	119	PHY	94,2	11
SOC	93,6	222	SOC	92,8	56
		1025			131

Action	Eligible proposals	Main list
PF-EF	7439	1025
Grand total	8247	1156

Action	Eligible proposals	Main list
PF-GF	808	131
Grand total	8247	1156

Panel	Success rate EF
CHE	13,94%
ECO	13,82%
ENG	13,59%
ENV	13,73%
LIF	13,76%
MAT	14,11%
PHY	14,05%
SOC	13,67%
Grand Total	13,78%

Panel	Success rate GF
CHE	16,92%
ECO	22,22%
ENG	15,71%
ENV	15,97%
LIF	15,97%
MAT	15,38%
PHY	15,94%
SOC	16,28%
Grand Total	16,21%

MSCA-PF

Condiciones del investigador postdoctoral

Convocatoria	Nºde años contrato	Coste total/año (salario bruto+costes patronales) (NOTA: Sin aplicar factor de conversión para ES= 0,913 al living allowance)	Plazo de Incorporación	Ayuda activ. de Inv. - aprox	Colaboración Docente	Promoción
MSCA-Postdoctoral Fellowships (2023; HORIZON-MSCA-2023-PF-01-01)	2 años a tiempo completo GF→2 de estancia en País Tercero no asociado+ 1 de retorno a la UPM	68.160 € (+7.920 € <i>family allowance</i>) – conv. 2023-2024	Hasta un año después de la firma del acuerdo de subvención con la Comisión Europea	12.000€/año (+7.800€ <i>management +overheads</i>) – conv. 2023-2024	Máx. de 80 horas anuales, si previsto en la propuesta, a petición propia	Convocatoria abierta UPM de plazas de Ayudante Doctor

MSCA	Researcher Unit Cost (person/month)			Institutional Unit Cost (P/M)	
	Living Allowance*	Mobility Allowance	Family Allowance	Research, training and networking	Management and overheads
IF	5.080	600	660	1.000	650
IF ES	4.638,04	600	660	1.000	650
IF 24 months ES	111.312,96	14.400	15.840	24.000	15.600
TOTAL IF 2 years	181.152,96€				

RESEARCHER UNIT COST

Living Allowance:

- CCC: country correction factor applies (host country) 91,3
- Gross EU contribution living allowance (- cuota patronal, - taxes, - S.S...) before taxes!

INSTITUCIONAL UNIT COST

Research, training and networking costs:

- Purchase of material, organisation and travel to events, payment of conferences fees, etc.

Management and overheads:

- Indirect costs for institutions

Recomendaciones y elementos a tener en cuenta

- Inscribirse en las sesiones informativas y formativas
 - ✓ Sesión informativa general UPM con NCP (finales de abril)
 - ✓ La OPI para Doctorandos (Junio 2023), en colaboración con la EID
- Informate de las acciones de apoyo que ofrece tu institución de acogida.
- Busca supervisor lo antes posible (!): Ofertas en la UPM (consultar <https://short.upm.es/cgcnt>)
- Es el candidat@ el que va a escribir la propuesta, pero necesita de la implicación del supervisor/a
- No se trata de un proceso de selección para un puesto en concreto.
- Más que un proyecto de investigación. Se busca el desarrollo de habilidades de investigación , pero también de competencias transferibles y complementarias.
- Intercambio de conocimientos entre el investigador, las instituciones implicadas y el supervisor.
- Si el candidato defiende en julio-agosto, es probable que no le puede dedicar el tiempo necesario (!).

MSCA-PF

Recursos

- 2023-2024 Work programme: https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2023-2024/wp-2-msca-actions_horizon-2023-2024_en.pdf
- Marie Skłodowska-Curie Actions: <http://ec.europa.eu/research/mariecurieactions/>
- Convocatorias MSCA<: http://ec.europa.eu/research/mariecurieactions/apply-now/open-calls/index_en.htm
- El portal de Movilidad (EURAXESS): http://ec.europa.eu/euraxess/index_en.cfm
- Marie Curie Alumni Association: <https://www.mariecuriealumni.eu/>
- People Network - National Contact Point: <http://mariecurieactions.blogspot.com.es/>
- Facebook: <https://www.facebook.com/Marie.Curie.Actionsv>

ERC

Características principales

- **Objetivo:** Promover y apoyar la investigación de frontera sobre la base de la excelencia científica.
- Único criterio de evaluación: la excelencia, tanto de la idea como del investigador.
- En cualquier campo de la ciencia y sin prioridad temática.
- Da una gran visibilidad y reconocimiento, tanto al IP como a su equipo
- Es individual, pero requiere del compromiso y apoyo de la institución de acogida, que debe estar en un País miembro o asociado.
- Mínimos tanto en tiempo de dedicación como en estancia en el país miembro.
- Son ayudas portables
- Proyecto de larga duración.
- Investigadores independientes de cualquier nacionalidad, y etapa de su carrera investigadora.
- Convocatorias anuales.
- Se financia al investigador, aunque debe tener apoyo del centro.
- Varias modalidades de financiación.



Starting Grant (StG)

Investigadores prometedores
Experiencia de 2 a 7 años*
Hasta 1,5 M€**
Al menos una publicación importante sin el supervisor de tesis o como autor principal

Consolidator Grant (CoG)

Evidencia madurez e independencia
Experiencia de 7 a 12 años*
Hasta 2 millones €**
Varias publicaciones importantes sin el supervisor de tesis

Advanced Grant (AdG)

Investigadores líderes establecidos
Hasta 2,5 M€*
Tener algún resultado de investigación relevante en los últimos 10 años

*Posibles extensiones ventana elegibilidad

Financiación adicional hasta 1 M € si: a) movilidad desde fuera UE para establecerse en la UPM, b) adquisición de grandes equipamientos, c) acceso a grandes infraestructuras científicas y/o **d) otros gastos importantes relacionados con el trabajo de campo.

Synergy Grant (SyG)

Proyectos colaborativos
2-4 investigadores principales
Hasta 10 M € para 6 años

Proof of Concept (PoC)

Explorar potencial en el mercado de resultados e ideas ERC (beneficiarios ERC)
150.000€ para 18 meses

ERC Starting Grant

“A competitive **Starting Grant** must have already shown the potential for research independence and evidence of maturity, for example by having produced at least one important publication as main author or without the participation of their PhD supervisor.

Starting Grant
> 2 and ≤ 7 years
prior to 1 January 2024
Cut-off dates: PhD awarded from 1 January 2016 to 31 December 2021 (inclusive)



Early achievements track record

In the Track record (see “Proposal description”) the applicant Principal Investigator should list (if applicable, and in addition to any other scientific achievements deemed relevant by the applicant in relation to their research field and project):

- 1. Up to five publications in major international peer-reviewed multi-disciplinary scientific journals and/or in the leading international peer-reviewed journals, peer-reviewed conferences proceedings and/or monographs of their respective research fields, highlighting those as main author or without the presence as co-author of their PhD supervisor (properly referenced, field relevant bibliometric indicators²¹ may also be included); preprints may be included, if freely available from a preprint server (preprints should be properly referenced and either a link to the preprint or a DOI should be provided);**
- 2. Research monographs and any translations thereof;**
- 3. Granted patent(s);**
- 4. Invited presentations to internationally established conferences and/or international advanced schools;**
- 5. Prizes, awards, academy memberships.**



POLITÉCNICA



OFICINA DE PROYECTOS
INTERNACIONALES I+D+i / UPV

ERC Starting Grant

	Submitted Proposals	Selected Proposals
Life Sciences	860	124
Physical Sciences and Engineering	1224	168
Social Sciences and Humanities	848	116
TOTAL	2932	408
Success rate ~ 13.9 %		

source: https://erc.europa.eu/sites/default/files/2022-11/stg_2022_statistics.pdf

EURAXESS (website: <https://euraxess.ec.europa.eu/>): Pan-European initiative delivering information and support services to professional researchers. It provides:

- Support to the career development
 - ✓ EURAXESS Career Development Centres
 - ✓ Training resources (tools, kits, etc.).
- Improvement of the working conditions
 - ✓ European Charter for Researchers and a Code of Conduct for the Recruitment of Researchers
 - ✓ Human Resources Strategy for Researchers (HRS4R)
 - ✓ pan-European pension scheme for researchers: RESAVER
- Search of funding and hosting opportunities (<https://euraxess.ec.europa.eu/funding/search>)
- Search of job opportunities: <https://euraxess.ec.europa.eu/jobs/search>

The image displays three screenshots of the Euraxess website. The top screenshot shows the homepage with a navigation bar and a main banner that reads "Ready for a new OPPORTUNITY?". Below the banner are sections for "Find funding for your research project!" and "Browse for funding". The middle screenshot shows "Funding Search Results (492)" with a table of results and a "Filter by" dropdown menu. The bottom screenshot shows a "Search for jobs" page with a "Search" button and a "NEED HELP?" link. Below the search results, there is a section for "Available Offers (7133)" and a detailed listing for a "Postdoctoral position in Mathematical Analysis" at the University of Genoa. The listing includes details such as the research field (Mathematics), researcher profile (Margherita Donatelli), application deadline (14/02/2019), and location (Genoa).



POLITÉCNICA

Muchas Gracias

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International Project Office (OPI)
Vice-Rectorate for Research, Innovation and Doctoral studies

Universidad Politécnica de Madrid

www.upm.es/OPI



MSCA PF

Secondments and Placements

	SECONDMENT		NON-ACADEMIC PLACEMENT
Maximum Duration	EF: Up to 1/3 of the normal project duration	GF: Up to 1/3 of the duration of the outgoing phase	Up to 6 months duration
Timing	EF: At any time during the during the standard project duration	GF: <ul style="list-style-type: none"> up to three months possible at the start of the outgoing phase, to be included within the 1/3 maximum duration. not allowed during the mandatory 12 month return phase 	Additional period after the standard duration of the fellowship
	Can be divided in several smaller periods		
Mobility	Any country worldwide		EU Member State or Horizon Europe Associated Country
Sector	Any sector		Non-academic sector only
Encoding in Part A	Not encoded as a participating organisation (associated partner). Tick the box and indicate the number of months. Section 5		Encoded as a participating organisation (associated partner).
Description in part B1	Yes. Secondments should be described in part B1 and the evaluators will assess their relevance and quality in the respective criterion.		Yes. Non-academic placements should be described in part B1 and the evaluators will assess their relevance and quality in the respective criterion.
Supporting Doc in part B2	None		Yes. A letter of commitment is required.

MSCA PF

Award criteria

Criteria	Weight	Priority (ex.aequo)
Excellence	50%	1
Impact	30%	2
Implementation	20%	3

EXCELLENCE	IMPACT	QUALITY AND EFFICIENCY OF THE IMPLEMENTATION
Quality and pertinence of the project's research and innovation objectives (and the extent to which they are ambitious, and go beyond the state of the art)	Credibility of the measures to enhance the career perspectives and employability of the researcher and contribution to his/her skills development	Quality and effectiveness of the work plan, assessment of risks and appropriateness of the effort assigned to work packages
Soundness of the proposed methodology (including interdisciplinary approaches, consideration of the gender dimension and other diversity aspects if relevant for the research project, and the quality of open science practices)	Suitability and quality of the measures to maximise expected outcomes and impacts , as set out in the dissemination and exploitation plan, including communication activities	Quality and capacity of the host institutions and participating organisations, including hosting arrangements
Quality of the supervision, training and of the two-way transfer of knowledge between the researcher and the host	The magnitude and importance of the project's contribution to the expected scientific, societal and economic impacts	
Quality and appropriateness of the researcher's professional experience, competences and skills		
50%	30%	20%